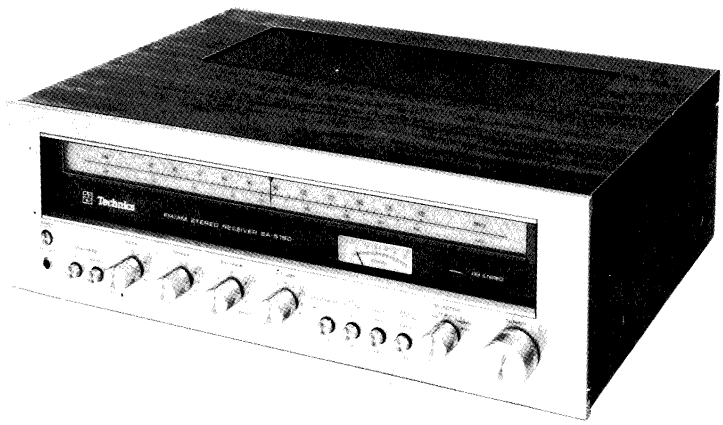
ORDER NO. SD7606-1094

Service Manual

FM/AM STEREO RECEIVER

SA-5160

(X),(XG),(XGH),(XE),
(XAL), (XSD), (XSW)



TECHNICAL SPECIFICATIONS (IHF)

Specifications are subject to change without notice for further improvement.

AMPLIFIER SECTION

1kHz continuous power:	both channels driven	30W + 30W (4Ω)
		26W + 26W (8Ω)
30Hz ~20kHz continuous power:	both channels driven	26W + 26W (4Ω)
		25W + 25W (8Ω)
Power bandwidth (both channels driven at 8Ω):		7Hz ~ 40kHz, −3dB
Total harmonic distortion:		0.5% at rated power (30Hz ~ 20kHz)
		0.05% at half power (1kHz)
Intermodulation distortion:		0.7%
Damping factor:		40 (8Ω), 20 (4Ω)
Input sensitivity and impedance:	PHONO	2.5mV/47kΩ
	AUX,	150mV/40kΩ
	PLAYBACK REC/PLAY input	180mV/47kΩ
PHONO maximum input voltage:	(1kHz, RMS)	130mV
S/N (IHF, A):	PHONO	75 dB
	AUX	90 dB
Frequency response:	PHONO	RIAA Standard curve ±0.5dB
	AUX	20Hz ~ 20kHz, +0.5dB, −0.5dB
Tone controls:	BASS	50Hz, +13dB ~ −13dB
	TREBLE	10kHz + 12dB ~ −12dB
Loudness control (volume at −30 dB):		50Hz, +10dB
Output voltage:	TAPE REC OUT	180mV
	REC/PLAY output	30mV

FM TUNER SECTION

Frequency range:	88 ~ 108MHz
Antenna impedance:	300Ω (balanced) 75Ω (unbalanced)
Sensitivity:	1.9μV
Total harmonic distortion:	MONO 0.15% STEREO 0.3%
S/N:	MONO 73dB STEREO 68 dB
Frequency response:	20Hz ~ 13kHz ±1.0 dB
Alternate channel selectivity:	70 dB
Capture ratio:	1.5 dB
Image rejection at 98MHz:	53 dB
IF rejection at 98MHz:	80 dB
AM suppression:	55 dB
Stereo separation:	1kHz 42 dB 10kHz 35 dB
Leak carrier:	−37dB(19kHz), −48dB(38kHz)

AM TUNER SECTION

Frequency range:	525 ~ 1605kHz
Sensitivity:	30μV, 300μV/m
Selectivity:	22 dB
Image rejection at 1000kHz:	45 dB
IF rejection at 1000kHz:	40 dB

GENERAL

Power consumption:	260W
Power supply:	110V/120V/220V/240V
Dimensions (W x H x D)	420 x 142 x 355mm (16-17/32" x 5-19/32" x 13-31/32")
Weight:	7.5kg (16.5 lb.)

TECHNISCHE DATEN (DIN 45 500)

Spezifikationen können infolge von Verbesserungen ohne Ankündigung geändert werden.

VERSTÄRKERTEIL

RMS-Dauertonleistung bei 1kHz:		
beide Kanäle zusammen ausgesteuert		2 x 30W (4Ω)
		2 x 26W (8Ω)
RMS-Dauertorleistung bei 30Hz ~ 20kHz:		
beide Kanäle zusammen ausgesteuert		2 x 26W (4Ω)
		2 x 25W (8Ω)
Leistungsbandbreite (beide Kanäle zusammen ausgesteurt bei 4Ω) :		7 Hz ~ 40kHz, −3 dB
Harmonische Verzerrungen:		
Nennleistung bei 40Hz ~ 16,000Hz, 4Ω		0.5%
Intermodulationsverzerrung:		
Nennleistung bei 250Hz: 8000Hz = 4:1, 4Ω		0.7%
Dämpfungsfaktor:		40 (8Ω) , 20 (4Ω)
Eingangsempfindlichkeit & Impedanz:	PHONO	2.5mV/ 47kΩ
	AUX, PLAYBACK	150mV/ 40kΩ
	REC/ PLAY Wiedergabe	180mV/ 47kΩ
PHONO Maximale Eingangsspannungen: (1kHz RMS)		130mV
Fremdspannungsabstand:	Nennleistung PHONO	65 dB
	AUX	75 dB
	50mW Ausgangsleistung PHONO	50 dB
	AUX	50 dB
Frequenzgang:	PHONO	RIAA Standardkurve ±0.5dB
	AUX	20Hz ~ 20kHz, ±0.5dB
Klangregler:	BASSE	50Hz, +13 dB ~ −13 dB
	HÖHEN	10kHz, + 12dB ~ −13 dB
Gehörgerechte Lautstärkekorrektur (Lautstärke −30 dB) :		50Hz, +10 dB
Ausgangsspannungen:	REC OUT	180mV
	REC/ PLAY Aufnahme	30mV

UKW-TUNERTEIL

Empfangsbereich:	88 ~ 108MHz
Antennenanschluss:	300Ω (symmetrisch) 75Ω (asymmetrisch)
Empfindlichkeit:	1.8μV, 30 dB Fremdspannungsabstand 300Ω
	1.5μV, 20 dB Fremdspannungsabstand 300Ω
	1.3μV, 30 dB Fremdspannungsabstand 75Ω
	0.9μV, 20 dB Fremdspannungsabstand 75Ω
Harmonische Verzerrung:	MONO 0.15%
	STEREO 0.3%
Fremdspannungsabstand:	MONO 56 dB
	STEREO 54 dB
Frequenzgang:	20Hz ~ 13kHz, ±1.0dB
Selektivität:	70 dB
Gleichwellen-Selektion:	1.5 dB
Spiegelselektion bei 98MHz:	53 dB
ZF-Festigkeit bei 98MHz:	80 dB
AM-Unterdrückung:	55 dB
Stereo Übersprechdämpfung:	42 dB bei 1kHz, 35 dB bei 10kHz
Trägerrest	−37dB bei 19kHz, −48dB bei 38kHz
Begrenzung, Einsatzpunkt:	1.0μV
Bandbreite:	ZF-Verstärker 250kHz
	UKW-Demodulator 1000kHz

MW-TUNERTEIL

Empfangsbereich:	525 ~ 1605kHz
Empfindlichkeit:	30μV, 300μV/ m
Selektivität:	22 dB
Spiegelselektion bei 1000kHz:	45 dB
ZF-Festigkeit bei 1000kHz:	40 dB

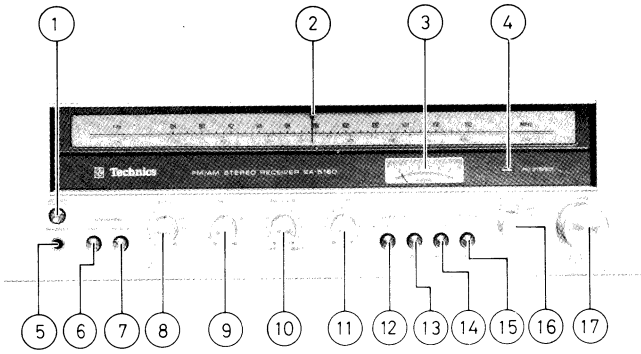
ALLGEMEINE DATEN

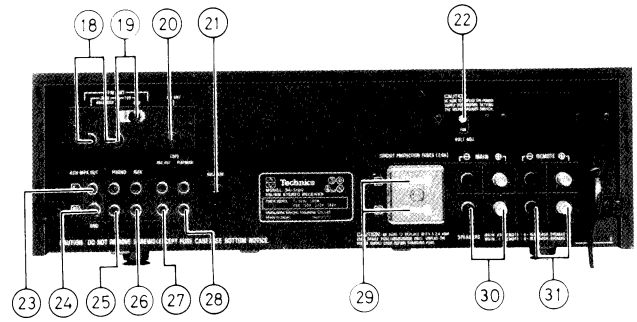
Leistungsaufnahme:	260W
Netzspannung umschaltbar:	110V/ 120V/ 220V/ 240V
Abmessungen (B x H x T):	420 x 142 x 355mm
Gewicht:	7.5 kg

Technics

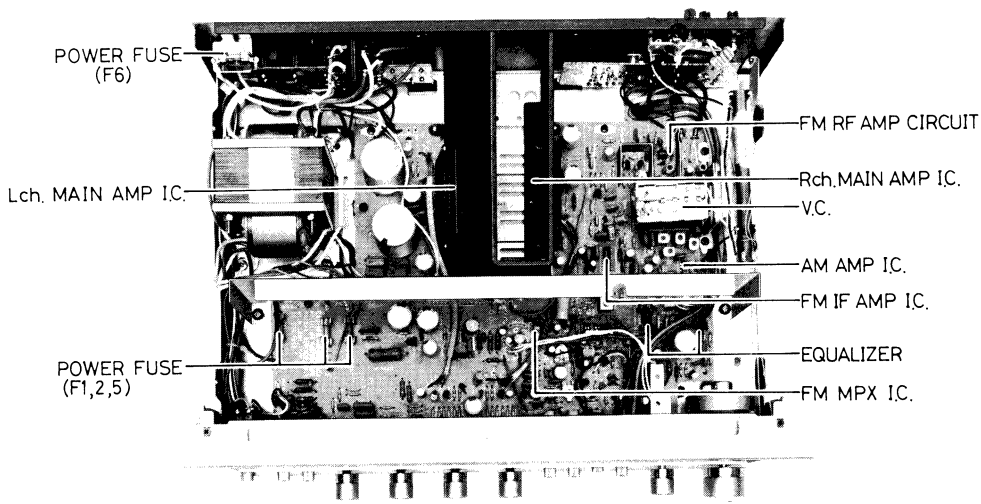
Matsushita Electric Trading Co., Ltd.
P.O. Box 288, Central Osaka Japan

■ LOCATION OF CONTROLS

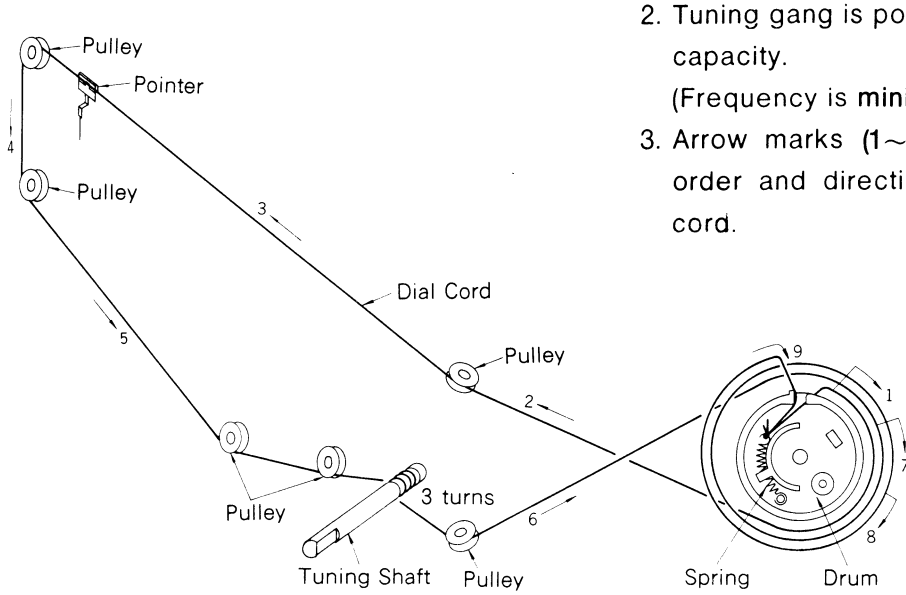




① POWER SWITCH
② DIAL POINTER
③ FM/AM SIGNAL METER
④ FM STEREO INDICATOR
⑤ HEADPHONES JACK
⑥ MAIN SPEAKER SWITCH
⑦ REMOTE SPEAKER SWITCH
⑧ BASS CONTROL
⑨ TREBLE CONTROL
⑩ BALANCE CONTROL
⑪ VOLUME CONTROL
⑫ LOUDNESS SWITCH
⑬ FM MUTING SWITCH
⑭ MODE SWITCH
⑮ TAPE MONITOR SWITCH
⑯ SELECTOR SWITCH
⑰ TUNING CONTROL
⑱ FM ANTENNA TERMINALS(300Ω)
⑲ FM ANTENNA TERMINALS(75Ω)
⑳ AM ANTENNA TERMINAL
㉑ REC/PLAY(DIN)SOCKET
㉒ VOLTAGE SELECTOR SWITCH (EXCEPT SET FOR AUSTRALIA)
㉓ 4CH MPX OUTPUT TERMINAL
㉔ GROUND TERMINAL
㉕ PHONO INPUT TERMINALS
㉖ AUX INPUT TERMINALS
㉗ TAPE DECK CONNECTION TERMINALS (REC OUT)
㉘ TAPE DECK CONNECTION TERMINALS (PLAYBACK)
㉙ SPEAKER CIRCUIT PROTECTION FUSES
㉚ MAIN SPEAKER TERMINALS
㉛ REMOTE SPEAKER TERMINALS



■ DIAL CORD INSTALLATION GUIDE



1. Dial cord length is 74 11/16″ (190cm).
2. Tuning gang is positioned at **maximum** capacity.
   (Frequency is **minimum**)
3. Arrow marks (1~9) indicate correct order and direction of stringing dial cord.

■ TO REMOVE CABINET

1. Loosen two (2) metal clamp-mounting screws, nos. ① and ② as shown in fig. 1.
2. Remove four (4) cabinet-mounting screws, nos. ③～⑥ as shown in fig. 2.
3. Remove cabinet from chassis in arrow direction 1 to 2, as shown in fig. 2.
4. To reassemble, reverse above procedure.

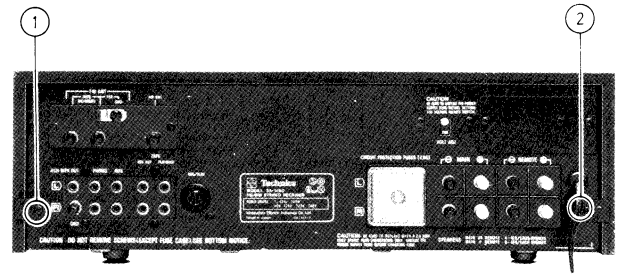


Fig. 1

■ TO REMOVE CHASSIS

1. Remove cabinet.
2. Remove two (2) heat sink-mounting screws, nos. ⑦ and ⑧ as shown in fig. 4.
3. Remove two (2) dial light reflection board-mounting screws, nos. ⑨ and ⑩ as shown in fig. 5.
4. Remove six (6) printed circuit board-mounting screws, nos. ⑪～⑯ as shown in fig. 5.
5. Remove four (4) front panel-mounting screws, nos. ⑰ and ⑱ as shown in fig. 6. (Left and Right side)
6. Hold front panel with both hands and lift carefully that lead wires or other constituent parts be not damaged, as shown in fig. 7.
7. To reassemble, reverse the above procedure. (Replace spacers of screws nos. ⑨ and ⑩ of dial light reflection board, and toothed rings of screws nos. ⑪～⑭.)

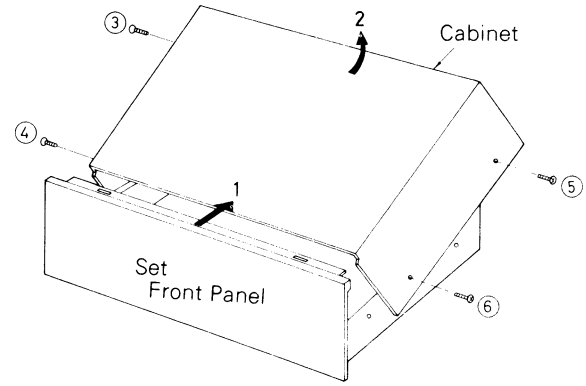


Fig. 2

■ TO REMOVE MAIN AMPLIFIER POWER I.C.'S

1. Remove cabinet.
2. Remove two (2) IC cover-mounting screws of bottom board, nos. ⑲ and ⑳ as shown in fig. 4.
3. Remove IC cover from bottom board.
4. Unsolder IC legs.
5. Remove four (4) I.C.-mounting screws, nos. 21 ～ 24 as shown in fig. 3.
6. Remove main amplifier power IC.
7. To reassemble, reverse the above procedure.

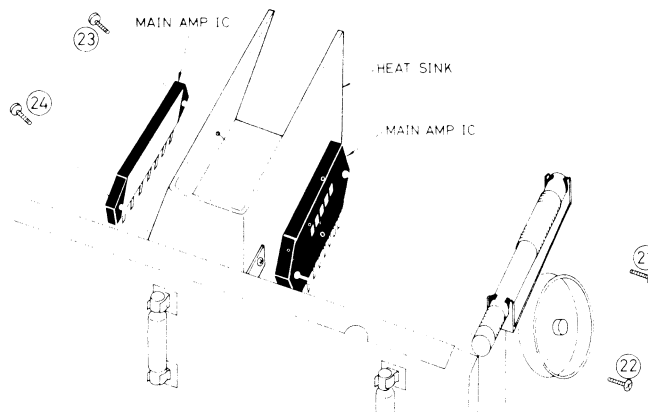


Fig. 3

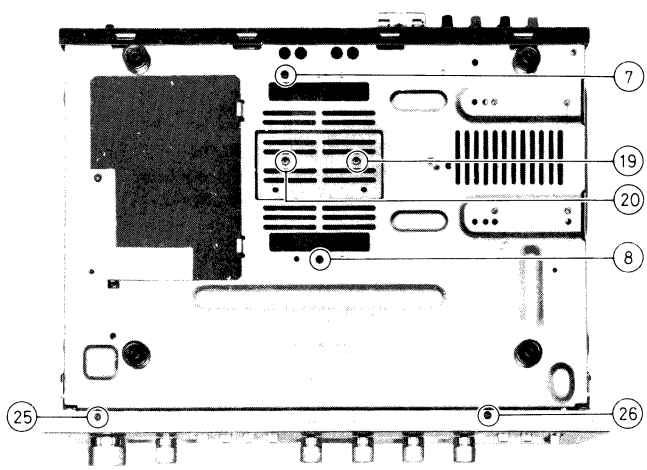


Fig. 4

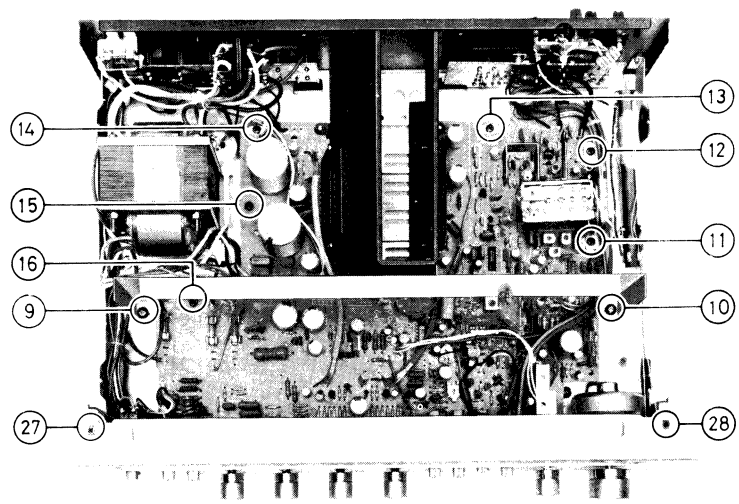


Fig. 5

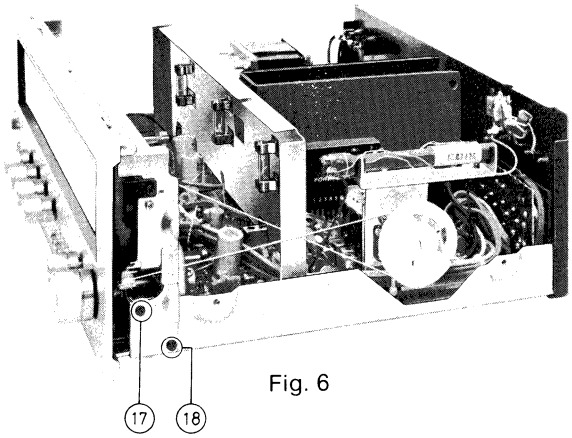


Fig. 6

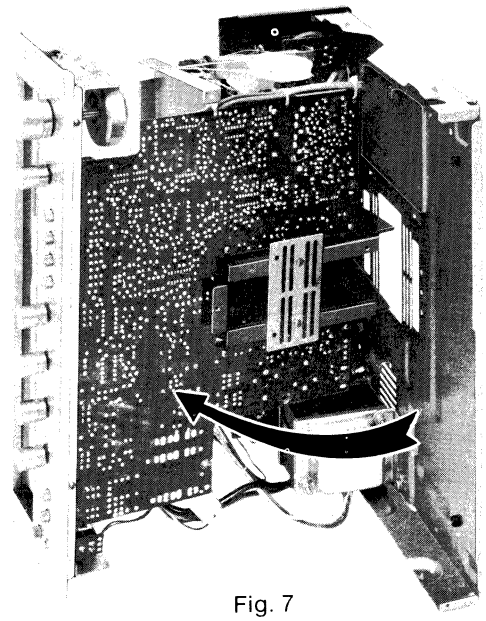
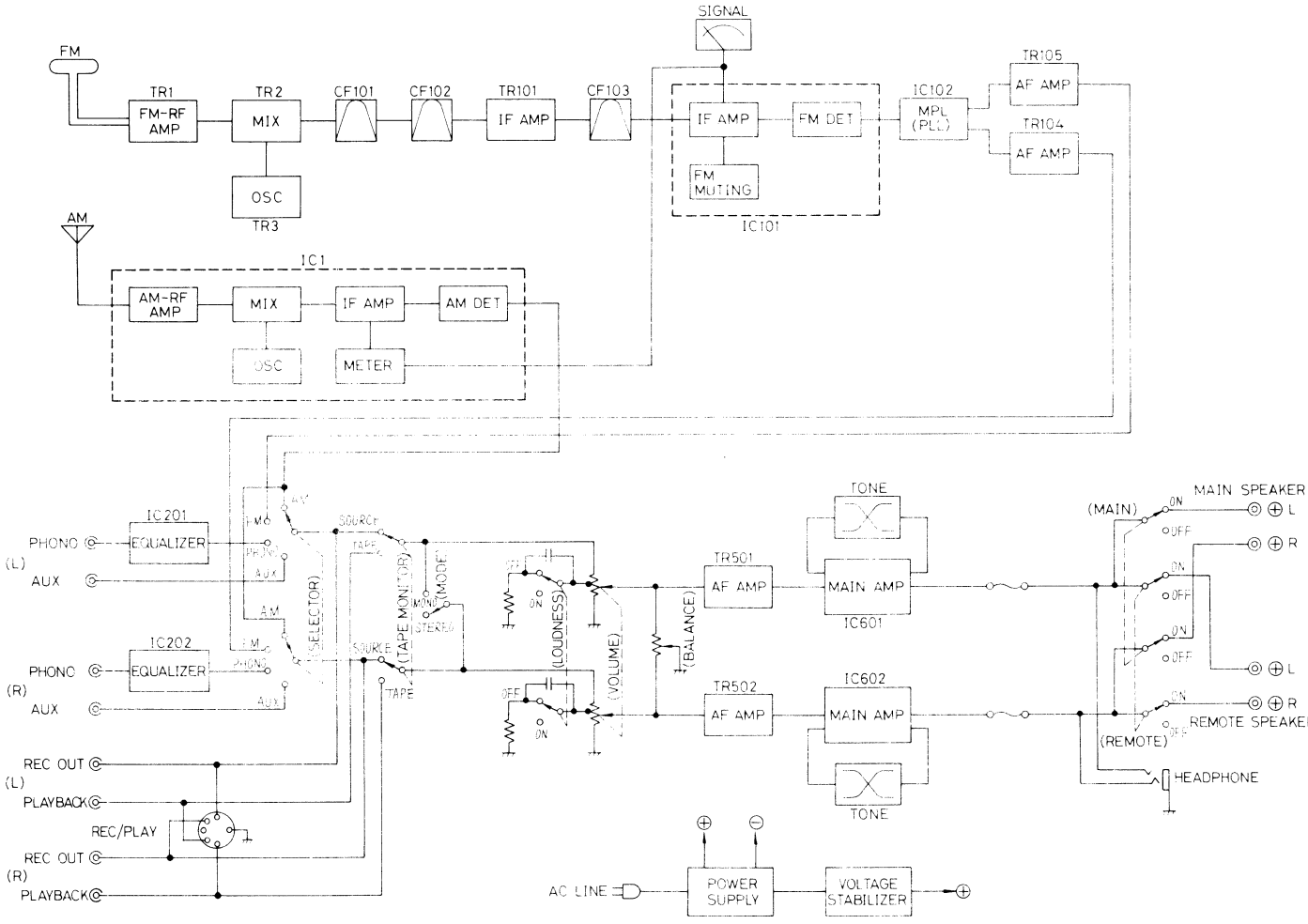


Fig. 7

■ TO REMOVE FRONT PANEL

1. Remove cabinet.
2. Pull out control knobs. (Bass, Treble, Balance, Volume, Selector and Tuning)
3. Remove four (4) front panel-mounting screws, nos. 25 ~ 28 as shown in fig. 4 and fig. 5.
4. Take off front panel carefully so that push buttons will not be damaged.

■ BLOCK DIAGRAM



■ ALIGNMENT INSTRUCTIONS

Notes :

1. Muting switch ..... OFF
2. Band selector switch ..... AM/FM AUTO (FM-RF, FM-IF)
3. 300Ω FM dummy antenna ..... Refer to fig. 1.
4. Speaker switch ..... ON
5. Mode switch ..... MONO
6. Maintain line voltage at rated voltage.
7. Output of signal generator should be no higher than necessary to obtain an output reading.

	SIGNAL GENERATOR or SWEEP GENERATOR		DIAL SETTING [DISTANCE]	INDICATOR (VTVM or SCOPE) [DISTORTION METER]	ADJUSTMENT POINTS	REMARKS
	CONNECTION	FREQUENCY				
	AM ALIGNMENT					
1	High side through 0.001 μF to AM antenna trimmer terminal Common to chassis.	455kHz (Set for England to 470kHz	Point of non-inter-ference	Connect vertical amplifier of scope to **TP1.** through 0.1μF.	T1 (1st IFT) (P) T2 (2nd IFT) (S) T3 (IF Trap)	Adjust for maximum output.
2	Fashion loop of several turns of wire and radiate signal into loop of tuner.	600kHz (30% Mod. with 400Hz)	600kHz [1 25/32"(45mm)]	Connect VTVM or scope to speaker terminal of receiver.	L8 (OSC Coil) L7 (ANT Coil)	Adjust for maximum output Adjust L7 by moving coil bobbin. along ferrite core.
3	Fashion loop of several turns of wire and radiate signal into loop of tuner.	1500kHz (30% Mod. with 400Hz)	1500kHz [7 5/8"(193.6mm)]	Connect VTVM or scope to speaker terminal of receiver.	CT5 (OSC Trimmer) CT4 (ANT Trimmer)	Adjust for maximum output. Repeat steps (2) and (3).
	FM-IF ALIGNMENT					
4		No Signal	Point of non-inter-ference.	Connet DC voltmeter between **TP104** and **TP105.**	T101 (DISCRI IFT) (A) Orange Core	Adjust for OmV indication
	FM-RF ALIGNMENT					
5	Connect to FM antenna terminal through FM dummy antenna.	90MHz (100% Mod. with 400Hz)	90MHz [1 7/32"(30.5mm)]	Connect VTVM or scope to speaker terminal of receiver.	L6 (OSC Coil) L4 (DET Coil) L2 (ANT Coil)	Adjust for maximum output.
6	Connect to FM antenna terminal through FM dummy antenna.	106MHz (100% Mod. with 400Hz)	106MHz [7 13/32"(187.5mm)]	Connect VTVM or scope to speaker terminal of receiver.	CT3 (OSC Trimmer) CT2 (DET Trimmer) CT1 (ANT Trimmer)	Adjust for maximum output. Repeat steps (5) and (6)
	FM-MONO DISTORTION ALIGNMENT					
7	Connect to FM antenna terminal through FM dummy antenna.	98MHz (100% Mod. with 400Hz)	98MHz	Connect distortion meter to speaker terminal of receiver.	T101 (DISCRI IFT) (B) Green Core	Adjust for minimum of distortion meter indication Repeat steps(4)and(7)

SOFT MUTING LEVEL ALIGNMENT

8

1. Muting switch to "off".
2. Apply a 60 dB (1mV) mono RF FM signal to the antenna terminals.
3. Adjust Volume Control of receiver to indicate 0dB on meter across speaker terminals.
4. Muting switch to "on".
5. Reduce FM signal to 19dB (9μV).
6. Adjust VR101 to −3dB on output meter. Refer to fig. 4.

FM MPX PILOT ALIGNMENT

9

Using a frequency counter	Using alternate system
① 98MHz Non-modulated mono signal applied to set. ② Muting switch to "on". ③ Connect frequency counter to TP102 through resistor (100kΩ). ④ Adjust VR102 to 19kHz ±30Hz.	1 Apply stereo signal from generator or stereo station to receiver. 2 Adjust VR102 until stereo indicator lights up. Cement arm of VR102 as shown in fig. 2.

STEREO SEPARATION ALIGNMENT

Note :
1. Stereo modulator ..... Connect stereo modulator output to EXT. MOD. terminal of signal generator.
   Internal OSC ..... 1kHz Pilot signal modulation 10%
2. Signal generator ..... Frequency approximately 98MHz. Output level 72dB (IHF). Modulation mode to FM.
3. Band selector switch ..... FM AUTO

SIGNAL GENERATOR CONNECTION	STEREO MODULATOR MODE and MOD. RATE	INDICATOR (VTVM or SCOPE)	ADJUSTMENT POINTS	REMARKS
FM antenna terminal through dummy antenna.	L (and R) 30% Modulation.	Connect VTVM or scope to output terminals through low pass filter. Refer to fig.3.	VR103	Adjust for minimum right (and left) output.

FM SIGNAL METER ALIGNMENT

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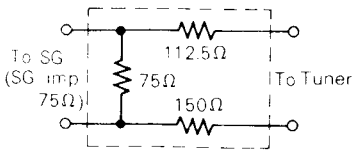
1 Apply 98MHz FM signal of 100dB (about 100mV), 400Hz 30% modulation to FM antenna terminal.
2 Tuning 98MHz for maximum output at speaker terminal.
3 Adjust VR104 to about 4.7 on signal meter scale.

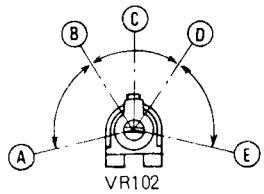
■ FM-RF ALIGNMENT INSTRUCTIONS ..... Only set for Germany

ABGLEICHANWEISUNGEN.....VOR DEM ABGLEICH SORGFÄLTIG DURCHLESEN					
MESSENDER		SKALENZEIGER-EINSTELLUNG DES EMPFÄNGERS (ABSTAND)	ANGEIGE (RÖHRENVOLTMETER ODER OSZILLOGRAPH)	ABGLEICH	BEMERKUNGEN
SCHALTUNG	FREQUENZ				
FM HF-ABGLEICH					
Anschluß an den FM Antennenanschluß über die künstliche FM Antenne. (Vgl. Abb. 1)	87.5MHz (100% Mod. bei 400Hz)	87.5MHz (0mm)	Output meter über Lautsprecher-schwingspule anschließen.	L_6 (Oszillatorspule)	Auf max. Ausgang abgleichen.
〃	90MHz (〃)	90MHz (30.5mm)	〃	L_4 (Zwischenkreis) L_2 (Antennenspule)	〃
〃	106MHz (〃)	106MHz (187.5mm)	〃	CT_3 (OSZ. Trimmer) CT_2 (DET. Trimmer) CT_1 (ANT. Trimmer)	〃



300Ω FM Dummy Antenna

Fig. 1



A~B, D~E: Stereo OFF Position
B~D: Stereo ON Position
C: (Indicator Lighting) Adjust Point of Pilot Circuit

Fig. 2

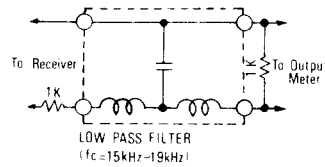
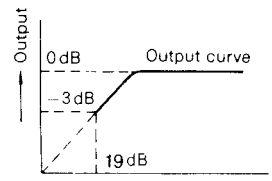


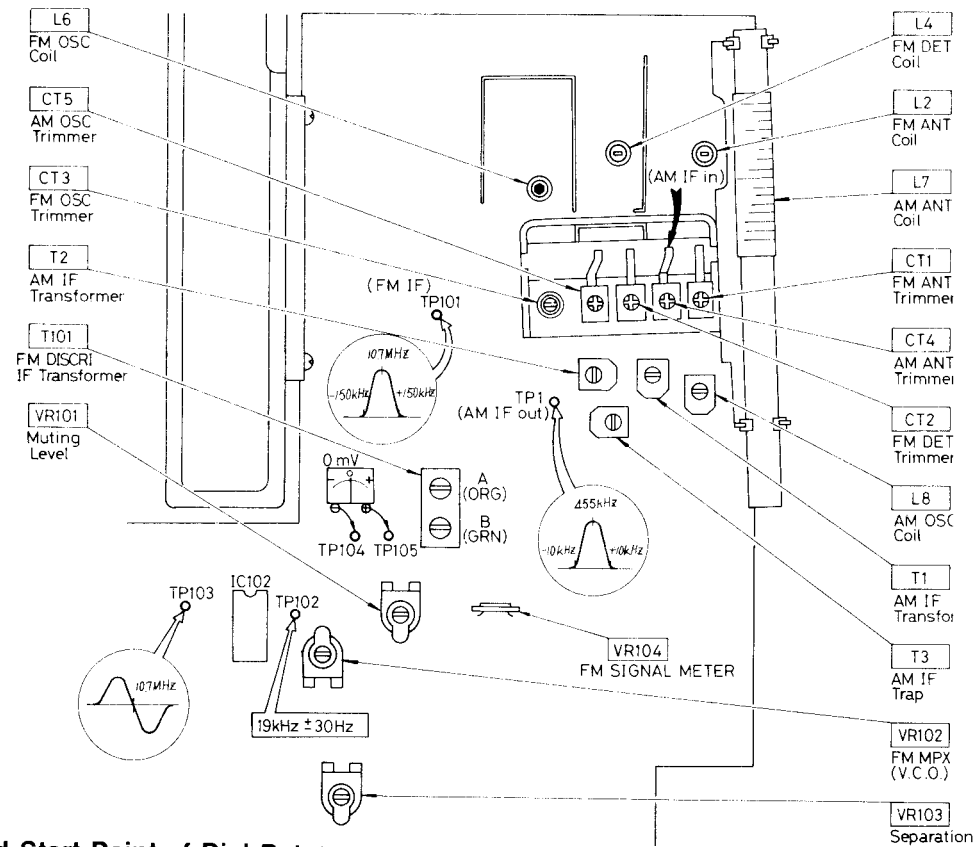
Fig. 3



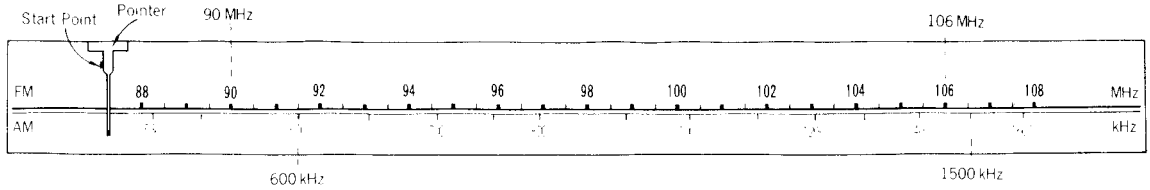
FM input vs. AF output curve

Fig. 4

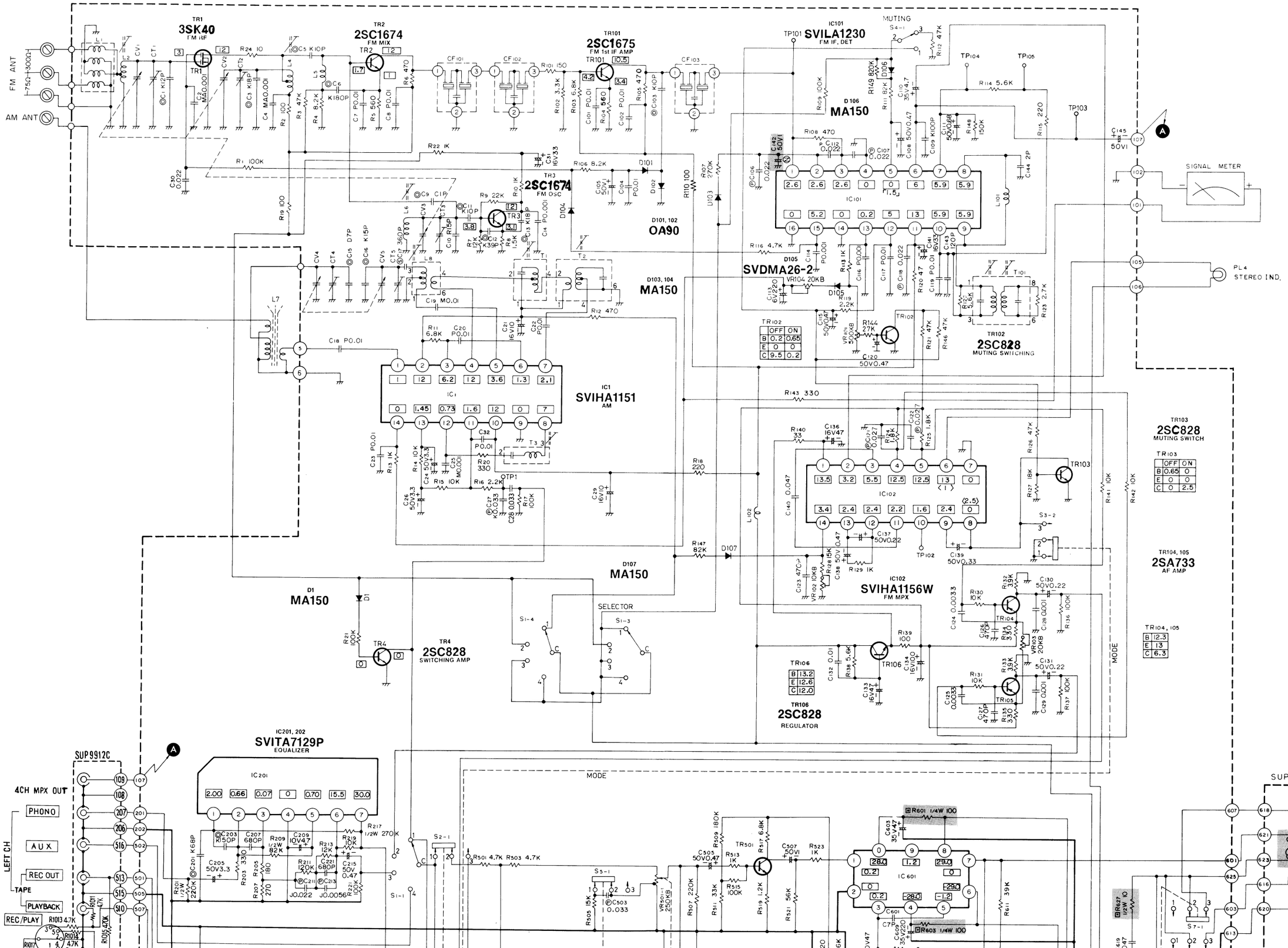
• Alignment Points



• Dial Scale and Start Point of Dial Pointer

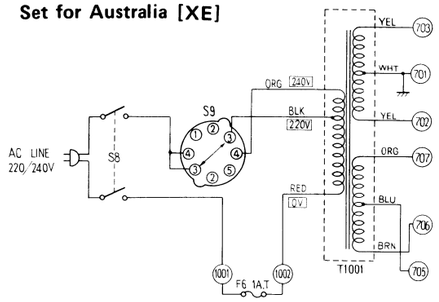


Schematic Diagram.....Model SA-5160 [X], [XG], [XGH], [XSD], [XSW] (This schematic diagram may be modified at any time with the development of new technology)

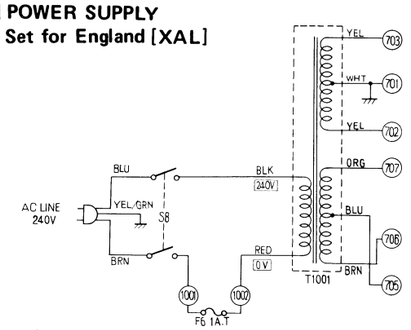


IMPORTANT SAFETY NOTICE
THE SHADED AREA ON THIS SCHEMATIC DIAGRAM IHCORPORATES SPECIAL FEATURES IMPORTANT FOR SAFETY.
WHEN SERVICING IT IS ESSENTIAL THAT ONLY MANUFACTURER'S SPECIFIED BE USED FOR THE CRITICAL COMPONENTS IN THE SHADED AREAS OF THE SCHEMATIC.

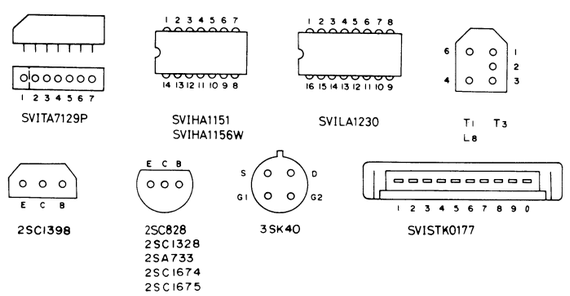
■ POWER SUPPLY
Set for Australia [XE]



■ POWER SUPPLY
Set for England [XAL]



BOTTOM VIEW

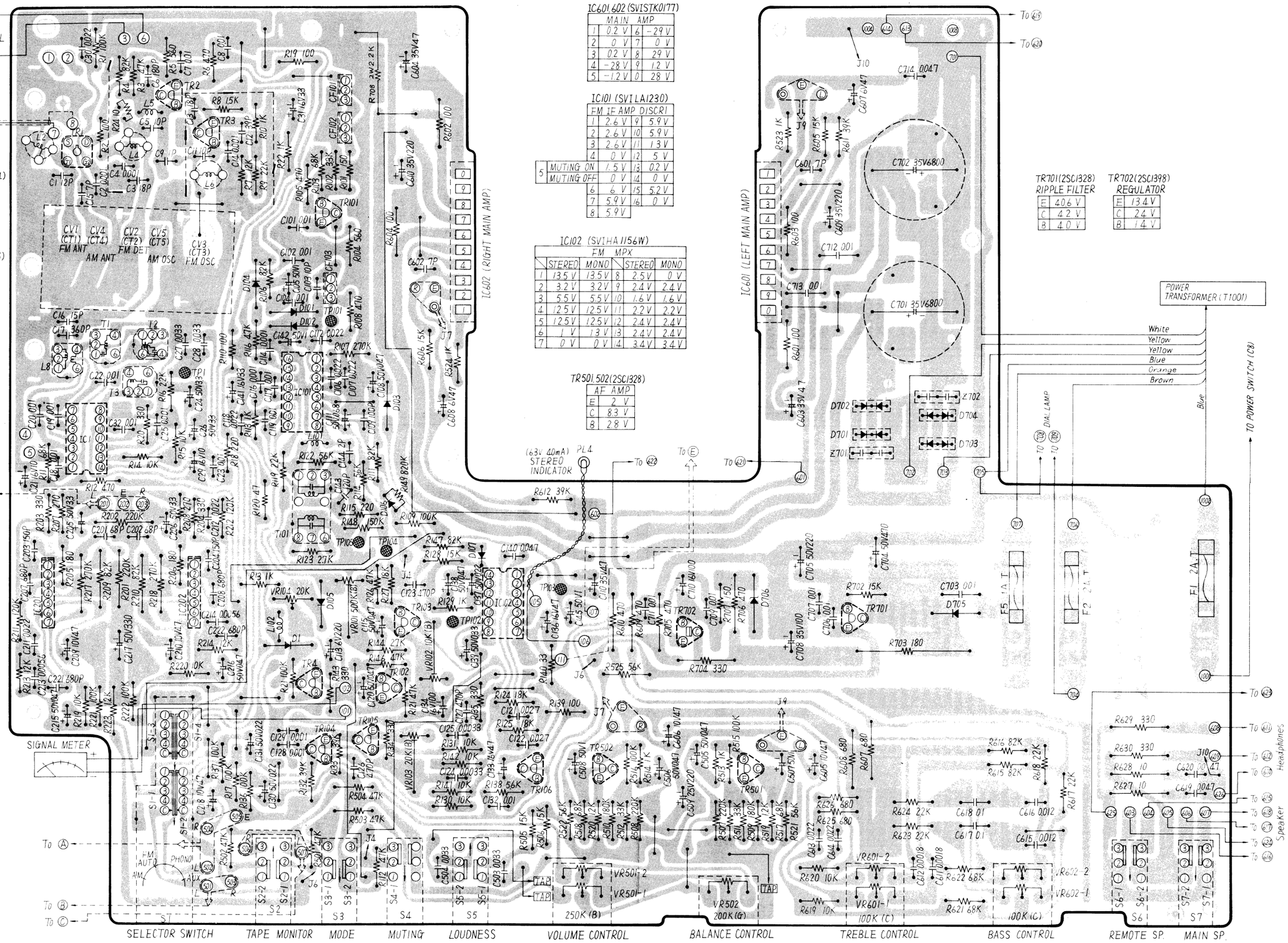


NOTE:

1. **S1-1~S1-4** : Selector switch in **"AM"** position.
   ① AM ↔ ②FM AUTO ↔ ③ PHONO ↔ ④ AUX
2. **S2-1, S2-2** Tape monitor switch in **"SOURCE"** position.
   SOURCE ↔ TAPE (PUSH)
3. **S3-1, S3-2** : Mode switch in **"STEREO"** position.
   STEREO ↔ MONO (PUSH)
4. **S4** : FM muting switch in **"OFF"** position.
   ON ↔ OFF (PUSH)
5. **S5-1, S5-2** : Loudness switch in **"OFF"** position.
   OFF ↔ ON (PUSH)
6. **S6-1, S6-2** : Remote speakers switch in **"ON"** position.
   OFF ↔ ON (PUSH)
7. **S7-1, S7-2** : Main speakers switch in **"ON"** position.
   OFF ↔ ON (PUSH)
8. **S8-1, S8-2** : Power switch in **"OFF"** position.
   OFF ↔ ON (PUSH)
9. **S9** : Voltage selector switch in **"110V"** position.
   ① 110V ↔ ②120V ↔ ③ 220V ↔ ④ 240V
10. DC voltage measurements are taken with DC voltmeter from chassis ground.
    □ ..... FM/AM non signal condition
    〈 〉..... FM stereo signal reception
    ⌜ ⌟..... FM muting to "ON" position
11. **VR101** : FM muting level adjustment.
12. **VR102** : FM multiplex voltage control oscillator (VCO) adjustment.
13. **VR103** : FM separation adjustment.
14. **VR104** : FM signal meter adjustment
15. **VR501** : Volume control
16. **VR502** : Balance control
17. **VR601** : Treble control
18. **VR602** : Bass control

Printed Circuit Board.....Model SA-5160

■ FM/AM TUNER, TONE CONTROL CIRCUIT, MAIN AMP. & POWER SUPPLY



TR1(3SK40) FM RF

S	0 V
D	12 V
G1	0 V
G2	3 V

TR2(2SC1674) FM MIX

E	1 V
C	12 V
B	1.7 V

TR3(2SC1675) FM OSC

E	3.1 V
C	12 V
B	3.8 V

TR101(2SC1675) FM IF

E	3.4 V
C	10.5 V
B	4.2 V

TR4(2SC828) SWITCHING

E	0 V
C	0 V
B	0 V

TR102(2SC828) MUT. SWITCH

	OFF	ON
E	0 V	0 V
C	9.5 V	0.2 V
B	0.2 V	0.65 V

TR103(2SC828) MUT. SWITCH

	OFF	ON
E	0 V	0 V
C	0 V	2.5 V
B	0.65 V	0 V

TR104,105(2SA733) AF AMP

E	13 V
C	6.3 V
B	12.3 V

IC1 (SVIHA1151) AM RF OSC MIX IF DET

1	1 V	8	7 V
2	12 V	9	0 V
3	6.2 V	10	12 V
4	12 V	11	1.6 V
5	3.6 V	12	0.73 V
6	1.3 V	13	1.45 V
7	2.1 V	14	0 V

IC201,202(SVITA7129P) AF EQUALIZER AMP

1	2 V
2	0.66 V
3	0.07 V
4	0 V
5	0.7 V
6	15.5 V
7	30 V

TR106(2SC828) REGULATOR

E	12.6 V
C	12 V
B	13.2 V

IC601,602 (SVISTK0177) MAIN AMP

1	0.2 V	6	-29 V
2	0 V	7	0 V
3	0.2 V	8	29 V
4	-28 V	9	1.2 V
5	-1.2 V	10	28 V

IC101 (SVILA1230) FM IF AMP DISCRI

1	2.6 V	9	5.9 V
2	2.6 V	10	5.9 V
3	2.6 V	11	1.3 V
4	0 V	12	5 V
5	MUTING ON	1.5 V	13	0.2 V
	MUTING OFF	0 V	14	0 V
6	6 V	15	5.2 V
7	5.9 V	16	0 V
8	5.9 V		

IC102 (SVIHA1156W) FM MPX

	STEREO	MONO	STEREO	MONO
1	13.5 V	13.5 V	8	2.5 V	0 V
2	3.2 V	3.2 V	9	2.4 V	2.4 V
3	5.5 V	5.5 V	10	1.6 V	1.6 V
4	12.5 V	12.5 V	11	2.2 V	2.2 V
5	12.5 V	12.5 V	12	2.4 V	2.4 V
6	1 V	1.3 V	13	2.4 V	2.4 V
7	0 V	0 V	14	3.4 V	3.4 V

TR501,502(2SC1328) AF AMP

E	2 V
C	8.3 V
B	2.8 V

TR701(2SC1328) RIPPLE FILTER

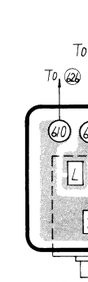
E	40.6 V
C	42 V
B	40 V

TR702(2SC1398) REGULATOR

E	13.4 V
C	24 V
B	14 V

■ INPUT

■ HEADP

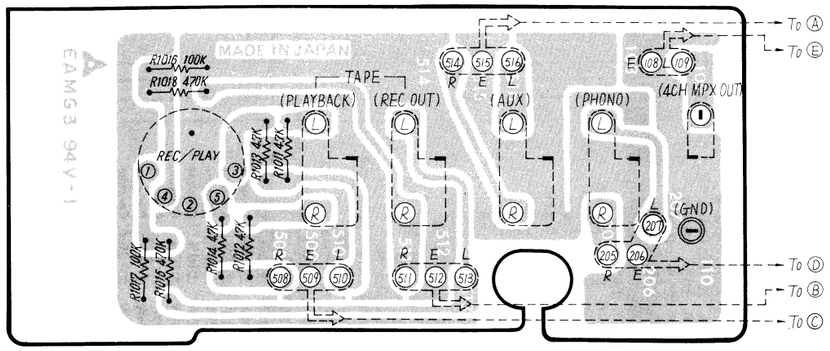


■ BLOCK

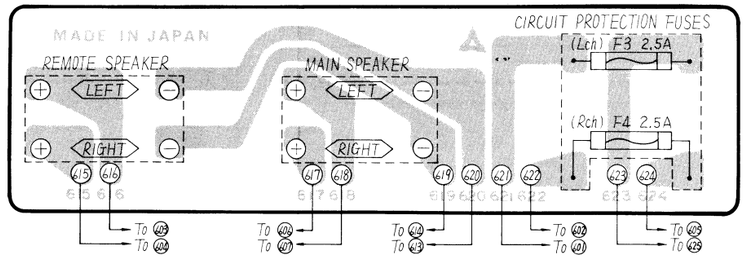
- IC10
FM IF

IF INPUT
FILTER
AGC OUTPUT

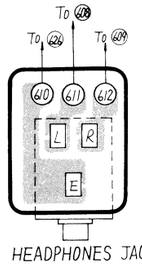
■ INPUT TERMINAL



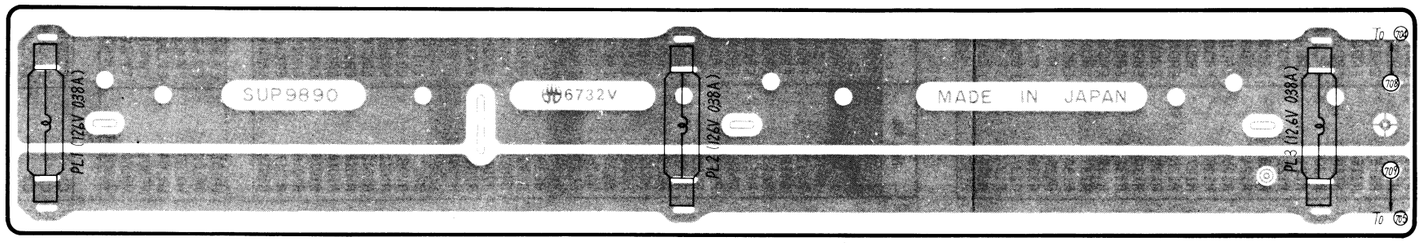
■ SPEAKER TERMINAL



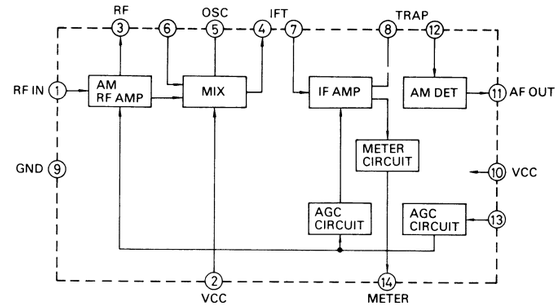
■ HEADPHONES JACK



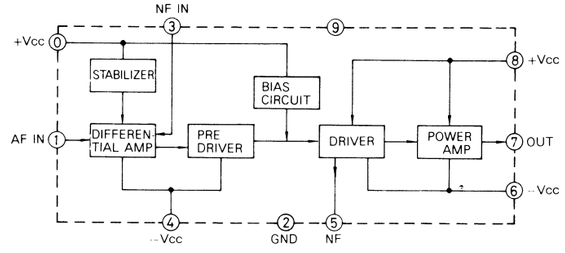
■ DIAL LAMP TERMINAL



- IC1 **(SVIHA1151)**
  AM RF, OSC, MIX, IF AMP & AM DETECTOR CIRCUIT

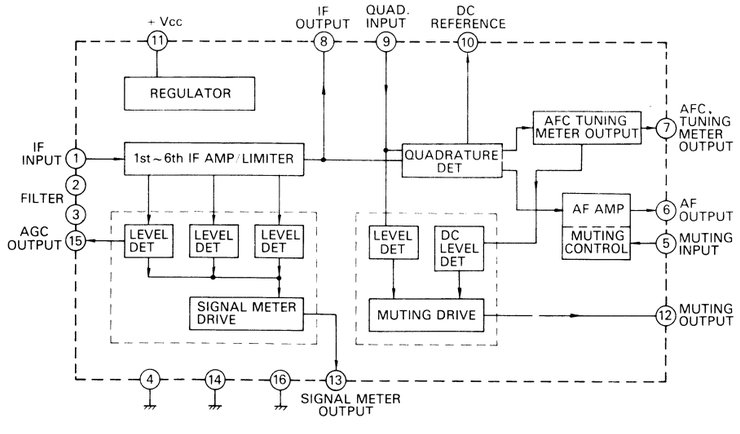


- IC601, 602 **(SVISTK0177)**
  MAIN AMPLIFIER

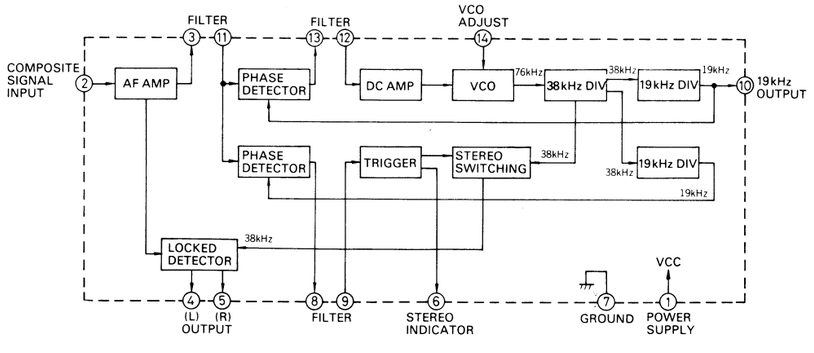


■ BLOCK DIAGRAM OF INTEGRATED CIRCUITS

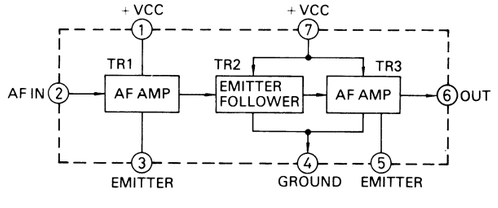
- IC101 **(SVILA1230)**
  FM IF AMP. FM DETECTOR & MUTING CIRCUIT



- IC102 **(SVIHA1156)**
  FM MULTIPLEX CIRCUIT



- IC201, 202 **(SVITA7129P)**
  EQUALIZER AMPLIFIER



■ REPLACEMENT PARTS LIST

Important Safety Notice
Components identified by shaded area have special characteristics important for safety.
When replacing any of these components use only manufacturer's specified parts.

NOTE : 1. Part numbers are indicated on most mechanical parts.
Please use this part number for parts orders.

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
INTEGRATED CIRCUITS				
IC1	SVIHA1151	AM RF, IF Amp, MIX, OSC, DET	1	
IC101	SVILA1230	FM IF Amp & Discriminator	1	
IC102	SVIHA1156W	FM MPX	1	
IC201, 202	SVITA7129P	Equalizer Amplifier	2	
IC601, 602	SVISTK0177	Main Amplifier	2	○
TRANSISTORS				
TR1	3SK40-M	FM RF Amplifier	1	
TR2, 3	2SC1674-M	FM Mixer & FM Oscillator	2	
TR101	2SC1675-L1	FM IF Amplifier	1	
TR104, 105	2SA733-P1	AF Amplifier	2	
TR4,102,103 106,501,502, 701	**2SC1328-T**	Switching, AF Amplifier & Ripple Filter (in ranks T or U)	7	
TR702	2SC1398-Q	Voltage Regulator (in ranks Q or R)	1	
DIODES				
D1,103,104, 106,107	MA150	AGC & Switching	5	
D105	SVDMA26-2	Meter Detector	1	
D101 102	OA90	FM AGC	2	
D701,702	SVD1D2C1	Rectifier	2	
D703,704	SVD1D2Z1	Rectifier	2	
D705	SVD10E1	Rectifier	1	
D706	SVDMZ414	14V Zener, Voltage Stabilizer	1	
COILS and TRANSFORMERS				
L1	SLAA4W1-3	Balun Coil	1	
L2	SLAA4N9	FM Antenna Coil	1	
L4	SLDA4N18	FM Detector Coil	1	
L5	RLQY15G5	Choke Coil	1	
L6	SLOA4N9	FM Oscillator Coil	1	
L7	SLF2D27	AM Antenna Coil	1	
L8	RLO2M4P	AM Oscillator Coil	1	
L101	SLQX180-1	Choke Coil	1	
L102	SLQX101-2D	Choke Coil	1	
T1	RLI2M201	AM IF Transformer	1	
T2	RLI2M202	AM IF Transformer	1	
T3	SLI2M401	AM IF Filter	1	
T101	SLI4D513	FM IF Transformer	1	
T1001(X,XG, XGH,XSD,XSW)	SLT5P71-W	Power Trans. Set for (X),(XG),(XGH) (XSD)&(XSW)	1	○
T1001 (XAL)	SLT5P75-W	Power Trans. Set for (XAL)	1	○
T1001 (XE)	SLT5P73-W	Power Trans. Set for (XE)	1	○
CERAMIC FILTERS				
CF101,102,103	SVFE107MA8A	FM IF Circuit, Red, 10.7MHz	each 3	
	SVFE107MA8B	FM IF Circuit, Blue, 10.67MHz		
	SVFE107MA8C	FM IF Circuit, Orange, 10.73MHz		
	SVFE107MA8D	FM IF Circuit, Black, 10.64MHz		
	SVFE107MA8E	FM IF Circuit, White, 10.76MHz		
	(Use pair ranks as same as CF101,102 and CF103,)			

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
RESISTORS				
R1	ERD18TJ104	100kΩ, 1/8W, ±5%, Carbon	1	
R2	ERD18TJ101	100Ω, 1/8W, ±5%, Carbon	1	
R3	ERD18TJ473	47kΩ, 1/8W, ±5%, Carbon	1	
R4	ERD18TJ822	8.2kΩ, 1/8W, ±5%, Carbon	1	
R5	ERD18TJ561	560Ω, 1/8W, ±5%, Carbon	1	
R6	ERD18TJ471	470Ω, 1/8W, ±5%, Carbon	1	
R7	ERD18TJ123	12kΩ, 1/8W, ±5%, Carbon	1	
R8	ERD18TJ152	1.5kΩ, 1/8W, ±5%, Carbon	1	
R9	ERD18TJ223	22kΩ, 1/8W, ±5%, Carbon	1	
R10	ERD18TJ102	1kΩ, 1/8W, ±5%, Carbon	1	
R11	ERD18TJ682	6.8kΩ, 1/8W, ±5%, Carbon	1	
R12	ERD18TJ471	470Ω, 1/8W, ±5%, Carbon	1	
R13	ERD18TJ102	1kΩ, 1/8W, ±5%, Carbon	1	
R14	ERD18TJ103	10kΩ, 1/8W, ±5%, Carbon	1	
R15	ERD18TJ103	10kΩ, 1/8W, ±5%, Carbon	1	
R16	ERD18TJ222	2.2kΩ, 1/8W, ±5%, Carbon	1	
R17	ERD18TJ104	100kΩ, 1/8W, ±5%, Carbon	1	
R18	ERD18TJ221	220Ω, 1/8W, ±5%, Carbon	1	
R19	ERD18TJ101	100Ω, 1/8W, ±5%, Carbon	1	
R20	ERD18TJ331	330Ω, 1/8W, ±5%, Carbon	1	
R21	ERD18TJ104	100kΩ, 1/8W, ±5%, Carbon	1	
R22	ERD18TJ102	1kΩ, 1/8W, ±5%, Carbon	1	
R24	ERD18TJ100	10Ω, 1/8W, ±5%, Carbon	1	
R101	ERD18TJ151	150Ω, 1/8W, ±5%, Carbon	1	
R102	ERD18TJ332	3.3kΩ, 1/8W, ±5%, Carbon	1	
R103	ERD18TJ682	6.8kΩ, 1/8W, ±5%, Carbon	1	
R104	ERD18TJ561	560Ω, 1/8W, ±5%, Carbon	1	
R105	ERD18TJ471	470Ω, 1/8W, ±5%, Carbon	1	
R106	ERD18TJ822	8.2kΩ, 1/8W, ±5%, Carbon	1	
R107	ERD18TJ274	270kΩ, 1/8W, ±5%, Carbon	1	
R108	ERD18TJ471	470Ω, 1/8W, ±5%, Carbon	1	
R109	ERD18TJ104	100kΩ, 1/8W, ±5%, Carbon	1	
R110	ERD18TJ101	100Ω, 1/8W, ±5%, Carbon	1	
R111	ERD18TJ823	82kΩ, 1/8W, ±5%, Carbon	1	
R112	ERD18TJ473	47kΩ, 1/8W, ±5%, Carbon	1	
R113	ERD18TJ102	1kΩ, 1/8W, ±5%, Carbon	1	
R114	ERD18TJ562	5.6kΩ, 1/8W, ±5%, Carbon	1	
R115	ERD18TJ221	220Ω, 1/8W, ±5%, Carbon	1	
R116	ERD18TJ472	4.7kΩ, 1/8W, ±5%, Carbon	1	
R119	ERD18TJ222	2.2kΩ, 1/8W, ±5%, Carbon	1	
R120	ERD18TJ470	47Ω, 1/8W, ±5%, Carbon	1	
R121	ERD18TJ473	47kΩ, 1/8W, ±5%, Carbon	1	
R122	ERD18TJ562	5.6kΩ, 1/8W, ±5%, Carbon	1	
R123	ERD18TJ272	2.7kΩ, 1/8W, ±5%, Carbon	1	
R124	ERD18TJ182	1.8kΩ, 1/8W, ±5%, Carbon	1	
R125	ERD18TJ182	1.8kΩ, 1/8W, ±5%, Carbon	1	
R126	ERD18TJ473	47kΩ, 1/8W, ±5%, Carbon	1	
R127	ERD18TJ183	18kΩ, 1/8W, ±5%, Carbon	1	
R128	ERD18TJ153	15kΩ, 1/8W, ±5%, Carbon	1	
R129	ERD18TJ102	1kΩ, 1/8W, ±5%, Carbon	1	
R130	ERD18TJ103	10kΩ, 1/8W, ±5%, Carbon	1	
R131	ERD18TJ103	10kΩ, 1/8W, ±5%, Carbon	1	
R132	ERD18TJ392	3.9kΩ, 1/8W, ±5%, Carbon	1	
R133	ERD18TJ392	3.9kΩ, 1/8W, ±5%, Carbon	1	
R134	ERD18TJ331	330Ω, 1/8W, ±5%, Carbon	1	
R135	ERD18TJ331	330Ω, 1/8W, ±5%, Carbon	1	
R136	ERD18TJ104	100kΩ, 1/8W, ±5%, Carbon	1	
R137	ERD18TJ104	100kΩ, 1/8W, ±5%, Carbon	1	
R138	ERD18TJ562	5.6kΩ, 1/8W, ±5%, Carbon	1	
R139	ERD18TJ101	100Ω, 1/8W, ±5%, Carbon	1	
R140	ERD18TJ330	33Ω, 1/8W, ±5%, Carbon	1	

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
R141	ERD18TJ103	10kΩ, 1/8W, ±5%, Carbon	1	
R142	ERD18TJ103	10kΩ, 1/8W, ±5%, Carbon	1	
R143	ERD18TJ331	330Ω, 1/8W, ±5%, Carbon	1	
R144	ERD18TJ273	27kΩ, 1/8W, ±5%, Carbon	1	
R146	ERD18TJ473	47kΩ, 1/8W, ±5%, Carbon	1	
R147	ERD18TJ823	82kΩ, 1/8W, ±5%, Carbon	1	
R148	ERD18TJ154	150kΩ, 1/8W, ±5%, Carbon	1	
R149	ERD18TJ824	820kΩ, 1/8W, ±5%, Carbon	1	
R151	ERD18TJ824	820kΩ, 1/8W, ±5%, Carbon	1	
R201	ERD12TSJ224	220kΩ, 1/2W, ±5%, Carbon	1	
R202	ERD12TSJ224	220kΩ, 1/2W, ±5%, Carbon	1	
R203	ERD18TJ331	330Ω, 1/8W, ±5%, Carbon	1	
R204	ERD18TJ331	330Ω, 1/8W, ±5%, Carbon	1	
R205	ERD18TJ181	180Ω, 1/8W, ±5%, Carbon	1	
R206	ERD18TJ181	180Ω, 1/8W, ±5%, Carbon	1	
R207	ERD18TJ271	270Ω, 1/8W, ±5%, Carbon	1	
R208	ERD18TJ271	270Ω, 1/8W, ±5%, Carbon	1	
R209	ERD12TSJ823	82kΩ, 1/2W, ±5%, Carbon	1	
R210	ERD12TSJ823	82kΩ, 1/2W, ±5%, Carbon	1	
R211	ERD18TJ124	120kΩ, 1/8W, ±5%, Carbon	1	
R212	ERD18TJ124	120kΩ, 1/8W, ±5%, Carbon	1	
R213	ERD18TJ123	12kΩ, 1/8W, ±5%, Carbon	1	
R214	ERD18TJ123	12kΩ, 1/8W, ±5%, Carbon	1	
R217	ERD12TSJ274	270kΩ, 1/2W, ±5%, Carbon	1	
R218	ERD12TSJ274	270kΩ, 1/2W, ±5%, Carbon	1	
R219	ERD18TJ103	10kΩ, 1/8W, ±5%, Carbon	1	
R220	ERD18TJ103	10kΩ, 1/8W, ±5%, Carbon	1	
R221	ERD18TJ104	100kΩ, 1/8W, ±5%, Carbon	1	
R222	ERD18TJ104	100kΩ, 1/8W, ±5%, Carbon	1	
R223	ERD14FJ122	1.2kΩ, 1/4W, ±5%, Carbon	1	
R501	ERD18TJ472	4.7kΩ, 1/8W, ±5%, Carbon		
R502	ERD18TJ472	4.7kΩ, 1/8W, ±5%, Carbon	1	
R503	ERD18TJ472	4.7kΩ, 1/8W, ±5%, Carbon	1	
R504	ERD18TJ472	4.7kΩ, 1/8W, ±5%, Carbon	1	
R505	ERD18TJ153	15kΩ, 1/8W, ±5%, Carbon	1	
R506	ERD18TJ153	15kΩ, 1/8W, ±5%, Carbon	1	
R507	ERD18TJ224	220kΩ, 1/8W, ±5%, Carbon	1	
R508	ERD18TJ224	220kΩ, 1/8W, ±5%, Carbon	1	
R509	ERD18TJ184	180kΩ, 1/8W, ±5%, Carbon	1	
R510	ERD18TJ184	180kΩ, 1/8W, ±5%, Carbon	1	
R511	ERD18TJ333	33kΩ, 1/8W, ±5%, Carbon	1	
R512	ERD18TJ333	33kΩ, 1/8W, ±5%, Carbon	1	
R513	ERD18TJ102	1kΩ, 1/8W, ±5%, Carbon	1	
R514	ERD18TJ102	1kΩ, 1/8W, ±5%, Carbon	1	
R515	ERD18TJ104	100kΩ, 1/8W, ±5%, Carbon	1	
R516	ERD18TJ104	100kΩ, 1/8W, ±5%, Carbon	1	
R517	ERD18TJ682	6.8kΩ, 1/8W, ±5%, Carbon	1	
R518	ERD18TJ682	6.8kΩ, 1/8W, ±5%, Carbon	1	
R519	ERD18TJ122	1.2kΩ, 1/8W, ±5%, Carbon	1	
R520	ERD18TJ122	1.2kΩ, 1/8W, ±5%, Carbon	1	
R521	ERD18TJ563	56kΩ, 1/8W, ±5%, Carbon	1	
R522	ERD18TJ563	56kΩ, 1/8W, ±5%, Carbon	1	
R523	ERD18TJ102	1kΩ, 1/8W, ±5%, Carbon	1	
R524	ERD18TJ102	1kΩ, 1/8W, ±5%, Carbon	1	
R525	ERD14FJ562	5.6kΩ, 1/4W, ±5%, Carbon	1	
R601	ERD14FJ101	100Ω, 1/4W, ±5%, Carbon	1	
R602	ERD14FJ101	100Ω, 1/4W, ±5%, Carbon	1	
R603	ERD14FJ101	100Ω, 1/4W, ±5%, Carbon	1	
R604	ERD14FJ101	100Ω, 1/4W, ±5%, Carbon	1	
R605	ERD18TJ153	15kΩ, 1/8W, ±5%, Carbon	1	
R606	ERD18TJ153	15kΩ, 1/8W, ±5%, Carbon	1	
R607	ERD12FJ681	680Ω, 1/2W, ±5%, Carbon	1	
R608	ERD12FJ681	680Ω, 1/2W, ±5%, Carbon	1	
R609	ERD12FJ471	470Ω, 1/2W, ±5%, Carbon	1	
R610	ERD12FJ471	470Ω, 1/2W, ±5%, Carbon	1	
R611	ERD18TJ393	39kΩ, 1/8W, ±5%, Carbon	1	
R612	ERD18TJ393	39kΩ, 1/8W, ±5%, Carbon	1	
R615	ERD18TJ822	8.2kΩ, 1/8W, ±5%, Carbon	1	
R616	ERD18TJ822	8.2kΩ, 1/8W, ±5%, Carbon	1	
R617	ERD18TJ223	22kΩ, 1/8W, ±5%, Carbon	1	
R618	ERD18TJ223	22kΩ, 1/8W, ±5%, Carbon	1	
R619	ERD18TJ103	10kΩ, 1/8W, ±5%, Carbon	1	
R620	ERD18TJ103	10kΩ, 1/8W, ±5%, Carbon	1	
R621	ERD18TJ682	6.8kΩ, 1/8W, ±5%, Carbon	1	
R622	ERD18TJ682	6.8kΩ, 1/8W, ±5%, Carbon	1	
R623	ERD18TJ222	2.2kΩ, 1/8W, ±5%, Carbon	1	
R624	ERD18TJ222	2.2kΩ, 1/8W, ±5%, Carbon	1	
R625	ERD18TJ681	680Ω, 1/8W, ±5%, Carbon	1	
R626	ERD18TJ681	680Ω, 1/8W, ±5%, Carbon	1	
R627	ERD12FJ100	10Ω, 1/2W, ±5%, Carbon	1	
R628	ERD12FJ100	10Ω, 1/2W, ±5%, Carbon	1	
R629	ERG1ANJ331	330Ω, 1W, ±5%, Metallic	1	
R630	ERG2ANJ331	330Ω, 2W, ±5%, Metallic	1	
R702	ERD18TJ153	15kΩ, 1/8W, ±5%, Carbon	1	
R703	ERG3ANJ181	180Ω, 3W, ±5%, Metallic	1	
R704	ERG1ANJ331	330Ω, 1W, ±5%, Metallic	1	
R705	ERD12FJ471	470Ω, 1/2W, ±5%, Carbon	1	
R706	ERD12FJ471	470Ω, 1/2W, ±5%, Carbon	1	
R707	ERD18TJ151	150Ω, 1/8W, ±5% Carbon	1	
R708	ERG2ANJ222	2.2kΩ, 2W, ±5%, Metallic	1	
R1011	ERD18TJ472	4.7kΩ, 1/8W, ±5%, Carbon	1	
R1012	ERD18TJ472	4.7kΩ, 1/8W, ±5%, Carbon	1	
R1013	ERD18TJ472	4.7kΩ, 1/8W, ±5%, Carbon	1	
R1014	ERD18TJ472	4.7kΩ, 1/8W, ±5%, Carbon	1	
R1015	ERD18TJ474	470kΩ, 1/8W, ±5%, Carbon	1	
R1016	ERD18TJ104	100kΩ, 1/8W, ±5%, Carbon	1	
R1017	ERD18TJ104	100kΩ, 1/8W, ±5%, Carbon	1	
R1018	ERD18TJ474	470kΩ, 1/8W, ±5%, Carbon	1	
VARIABLE RESISTORS				
VR101	EVLS3AA00B55	500kΩ(B), Muting Level Adj.	1	
VR102	EVLS3AA00B14	10kΩ(B), PLL VCO Adj.	1	
VR103	EVLS3AA00B24	20kΩ(B), Separation Adj.	1	
VR104	EVLS0AA00B24	20kΩ(B), FM Signal Meter Adjustment	1	
VR501	EWK1BAF30BF5	250kΩ(B), Volume Control	1	○
VR502	EVH4WAF30B25	200kΩ(G), Balance Control	1	○
VR601,602	EWK0BAF30C15	100kΩ(C), Bass & Treble Control	2	○
CAPACITORS				
C1	ECCD1H120KC	12pF, 50WV, ±10%, Ceramic	1	
C2	ECKD1H102MDA	0.001μF, 50WV, ±20%, Ceramic	1	
C3	ECCD1H180KC	18pF, 50WV, ±10%, Ceramic	1	
C4	ECKD1H102MDA	0.001μF, 50WV, ±20%, Ceramic	1	
C5	ECCD1H100KC	10pF, 50WV, ±10%, Ceramic	1	
C6	ECCD1H181K	180pF, 50WV, ±10%, Ceramic	1	
C7	ECKD1H103PF	0.01μF, 50WV, ±10%, Ceramic	1	
C8	ECKD1H103PF	0.01μF, 50WV, ±10%, Ceramic	1	
C9	ECCD1H010CC	1pF, 50WV, ±0.25pF, Ceramic	1	
C10	ECCD1H150KR	15pF, 50WV, ±10%, Ceramic	1	
C11	ECCD1H100KC	10pF, 50WV, ±10%, Ceramic	1	
C12	ECCD1H390KC	39pF, 50WV, ±10%, Ceramic	1	
C13	ECCD1H180KC	18pF, 50WV, ±10%, Ceramic	1	
C14	ECKD1H102PF	0.001μF, 50WV, ±10%, Ceramic	1	
C15	ECCD1H070DC	7pF, 50WV, ±0.5pF, Ceramic	1	
C16	ECCD1H150KC	15pF, 50WV, ±10%, Ceramic	1	

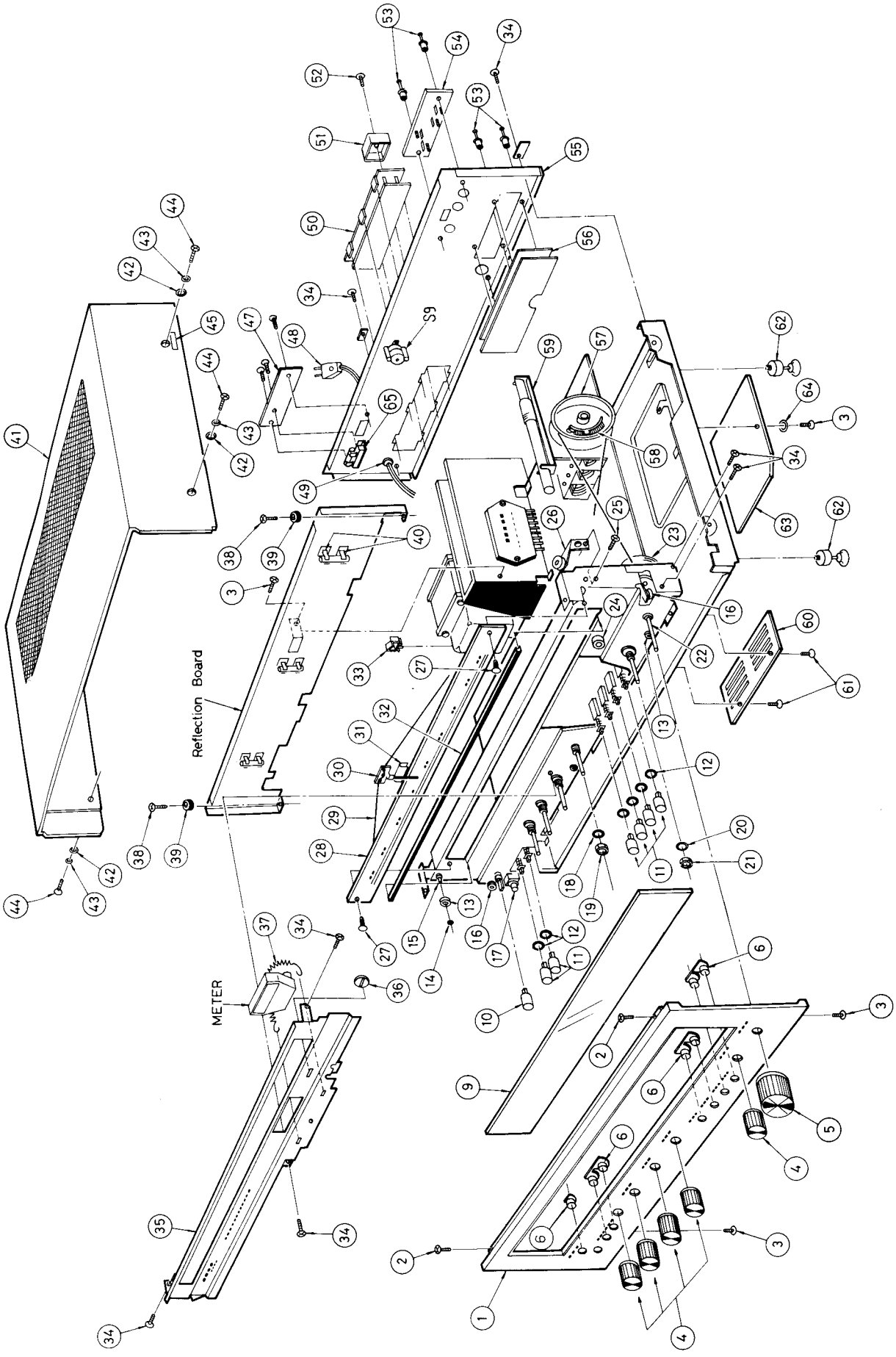
Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
C17	ECQS1361JZ	360pF, 125WV, ±5%, Styrol	1	
C18	ECKD1H103PF	0.01μF, 50WV, +100%, Ceramic	1	
C19	ECKD1H103MD	0.01μF, 50WV, ±20%, Ceramic	1	
C20	ECKD1H103PF	0.01μF, 50WV, +100%, Ceramic	1	
C21	**ECEA16V10V**	10μF, 16WV, Electrolytic	1	
C22	ECKD1H103PF	0.01μF, 50WV, +100%, Ceramic	1	
C23	ECKD1H103PF	0.01μF, 50WV, +100%, Ceramic	1	
C24	**ECEA50V3R3V**	3.3μF, 50WV, Electrolytic	1	
C25	ECKD1H102MD	0.001μF, 50WV, ±20%, Ceramic	1	
C26	**ECEA50V3R3V**	3.3μF, 50WV, Electrolytic	1	
C27	ECQM05333KZ	0.033μF, 50WV, ±10%, Polyester	1	
C28	ECQM05333KZ	0.033μF, 50WV, ±10%, Polyester	1	
C29	**ECEA16V10V**	10μF, 16WV, Electrolytic	1	
C30	ECKD1H223PF	0.022μF, 50WV, +100%, Ceramic	1	
C31	**ECEA16V33V**	33μF, 16WV, Electrolytic	1	
C32	ECKD1H103PF	0.01μF, 50WV, +100%, Ceramic	1	
C101	ECKD1H103PF	0.01μF, 50WV, +100%, Ceramic	1	
C102	ECKD1H103PF	0.01μF, 50WV, +100%, Ceramic	1	
C103	ECCD1H100KC	10pF, 50WV, ±10%, Ceramic	1	
C104	ECKD1H103PF	0.01μF, 50WV, +100%, Ceramic	1	
C105	**ECEA50V1V**	1μF, 50WV, Electrolytic	1	
C106	ECQM05223KZ	0.022μF, 50WV, ±10%, Polyester	1	
C108	**ECEA50MR47**	0.47μF, 50WV, Electrolytic	1	
C109	ECCD1H101K	100pF, 50WV, ±10%, Ceramic	1	
C110	**ECEA35V4R7V**	4.7μF, 35WV, Electrolytic	1	
C111	**ECEA50ZR68**	0.68μF, 50WV, Electrolytic	1	
C112	ECQM05223KZ	0.022μF, 50WV, ±20%, Polyester	1	
C113	**ECEA6V220V**	220μF, 6.3WV, Electrolytic	1	
C114	ECKD1H102PF	0.001μF, 50WV, +100%, Ceramic	1	
C115	**ECEA50ZR47**	0.47μF, 50WV, Electrolytic	1	
C116	ECKD1H102PF	0.001μF, 50WV, +100%, Ceramic	1	
C117	ECKD1H103PF	0.01μF, 50WV, +100%, Ceramic	1	
C118	ECQM05223KZ	0.022μF, 50WV, ±10%, Polyester	1	
C119	ECKD1H103PF	0.01μF, 50WV, +100%, Ceramic	1	
C120	**ECEA50ZR47**	0.47μF, 50WV, Electrolytic	1	
C121	ECQM05273JZ	0.027μF, 50WV, ±5%, Polyester	1	
C122	ECQM05273JZ	0.027μF, 50WV, ±5%, Polyester	1	
C123	ECQS1471JZ-K	470pF, 125WV, ±5%, Styrol	1	
C124	ECKD1H332KB	0.0033μF, 50WV, ±10%, Ceramic	1	
C125	ECKD1H332KB	0.0033μF, 50WV, ±10%, Ceramic	1	
C126	ECKD2H471KB	470pF, 500WV, ±10%, Ceramic	1	
C127	ECKD2H471KB	470pF, 500WV, ±10%, Ceramic	1	
C128	ECKD1H102KB	0.001μF, 50WV, ±10%, Ceramic	1	
C129	ECKD1H102KB	0.001μF, 50WV, ±10%, Ceramic	1	
C130	ECEA50MR22R	0.22μF, 50WV, Electrolytic	1	
C131	ECEA50MR22R	0.22μF, 50WV, Electrolytic	1	
C132	ECKD1H103PF	0.01μF, 50WV, +100%, Ceramic	1	
C133	**ECEA16V47V**	47μF, 16WV, Electrolytic	1	
C134	**ECEA16V100V**	100μF, 16WV, Electrolytic	1	
C136	**ECEA16V47V**	47μF, 16WV, Electrolytic	1	
C137	**ECEA50ZR22**	0.22μF, 50WV, Electrolytic	1	
C138	**ECEA50ZR47**	0.47μF, 50WV, Electrolytic	1	
C139	**ECEA50ZR33**	0.33μF, 50WV, Electrolytic	1	
C140	ECQM05473KZ	0.047μF, 50WV, ±10%, Polyester	1	
C141	**ECEA16V33V**	33μF, 16WV, Electrolytic	1	
C142	**ECEA50N1V**	1μF, 50WV, Non-Polar, Electrolytic	1	
C143	ECCD1H121K	120pF, 50WV, ±10%, Ceramic	1	
C144	ECCD1H020CC	2pF, 50WV, ±0.25pF, Ceramic	1	
C145	**ECEA50V1V**	1μF, 50WV, Electrolytic	1	
C201	ECCD1H680K	68pF, 50WV, ±10%, Ceramic	1	
C202	ECCD1H680K	68pF, 50WV, ±10%, Ceramic	1	
C203	ECCD1H151K	150pF, 50WV, ±10%, Ceramic	1	

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
C204	ECCD1H151K	150pF, 50WV, ±10%, Ceramic	1	
C205	ECEA50M3R3R	3.3μF, 50WV, Electrolytic	1	
C206	ECEA50M3R3R	3.3μF, 50WV, Electrolytic	1	
C207	ECKD2H681KB	680pF, 500WV, ±10%, Ceramic	1	
C208	ECKD2H681KB	680pF, 500WV, ±10%, Ceramic	1	
C209	**ECEA16V47V**	47μF, 16WV, Electrolytic	1	
C210	**ECEA16V47V**	47μF, 16WV, Electrolytic	1	
C211	ECQM05223JZ	0.022μF, 50WV, ±5%, Polyester	1	
C212	ECQM05223JZ	0.022μF, 50WV, ±5%, Polyester	1	
C213	ECQM05562JZ	0.0056μF, 50WV, ±5%, Polyester	1	
C214	ECQM05562JZ	0.0056μF, 50WV, ±5%, Polyester	1	
C215	ECEA50MR47R	0.47μF, 50WV, Electrolytic	1	
C216	ECEA50MR47R	0.47μF, 50WV, Electrolytic	1	
C217	**ECEA50V330V**	330μF, 50WV, Electrolytic	1	
C218	**ECEA16V47V**	47μF, 16WV, Electrolytic	1	
C221	ECKD2H681KB	680pF, 500WV, ±10%, Ceramic	1	
C222	ECKD2H681KB	680pF, 500WV, ±10%, Ceramic	1	
C503	ECQM05333KZ	0.033μF, 50WV, ±10%, Polyester	1	
C504	ECQM05333KZ	0.033μF, 50WV, ±10%, Polyester	1	
C505	ECEA50MR47R	0.47μF, 50WV, Electrolytic	1	
C506	ECEA50MR47R	0.47μF, 50WV, Electrolytic	1	
C507	ECEA50M1R	1μF, 50WV, Electrolytic	1	
C508	ECEA50M1R	1μF, 50WV, Electrolytic	1	
C509	**ECEA25V220V**	220μF, 25WV, Electrolytic	1	
C601	ECCD1H070DC	7pF, 50WV, ±0.5pF, Ceramic	1	
C602	ECCD1H070DC	7pF, 50WV, ±0.5pF, Ceramic	1	
C603	**ECEA35V47V**	47μF, 35WV, Electrolytic	1	
C604	**ECEA35V47V**	47μF, 35WV, Electrolytic	1	
C605	**ECEA16V47V**	47μF, 16WV, Electrolytic	1	
C606	**ECEA16V47V**	47μF, 16WV, Electrolytic	1	
C607	**ECEA16V47V**	47μF, 16WV, Electrolytic	1	
C608	**ECEA16V47V**	47μF, 16WV, Electrolytic	1	
C609	**ECEA35V220V**	220μF, 35WV, Electrolytic	1	
C610	**ECEA35V220V**	220μF, 35WV, Electrolytic	1	
C611	ECKD1H182KB	0.0018μF, 50WV, ±10%, Ceramic	1	
C612	ECKD1H182KB	0.0018μF, 50WV, ±10%, Ceramic	1	
C613	ECQM05223KZ	0.022μF, 50WV, ±10%, Polyester	1	
C614	ECQM05223KZ	0.022μF, 50WV, ±10%, Polyester	1	
C615	ECQM05123KZ	0.012μF, 50WV, ±10%, Polyester	1	
C616	ECQM05123KZ	0.012μF, 50WV, ±10%, Polyester	1	
C617	ECQM05104KZ	0.1μF, 50WV, ±10%, Polyester	1	
C618	ECQM05104KZ	0.1μF, 50WV, ±10%, Polyester	1	
C619	ECQM05473KZ	0.047μF, 50WV, ±10%, Polyester	1	
C620	ECQM05473KZ	0.047μF, 50WV, ±10%, Polyester	1	
C701	ECET35R682SU	6800μF, 35WV, Electrolytic	1	
C702	ECET35R682SU	6800μF, 35WV, Electrolytic	1	
C703	ECKD2H103PF	0.01μF, 500WV, +100%, Ceramic	1	
C704	**ECEA50V470V**	470μF, 50WV, Electrolytic	1	
C705	**ECEA50V220V**	220μF, 50WV, Electrolytic	1	
C706	ECKD1H103PF	0.01μF, 50WV, +100%, Ceramic	1	
C707	ECKD1H103PF	0.01μF, 50WV, +100%, Ceramic	1	
C708	**ECEA35V100V**	100μF, 35WV, Electrolytic	1	
C709	ECKD1H103PF	0.01μF, 50WV, +100%, Ceramic	1	
C710	**ECEA16V100V**	100μF, 16WV, Electrolytic	1	
C711	ECKD1H103PF	0.01μF, 50WV, +100%, Ceramic	1	
C712	ECKD2H103PF	0.01μF, 500WV, +100%, Ceramic	1	
C713	ECKD2H103PF	0.01μF, 500WV, +100%, Ceramic	1	
C714	ECQM05473KZ	0.047μF, 50WV, ±10%, Polyester	1	
VARIABLE CAPACITOR				
CV1~5 (CT1~5)	ECV5MD34X67G	Tuning Gang, FM and AM (with Trimmer)	1	

Ref. No.	Part No.	Part Name & Description	Per Set		Remarks
COMPONENT COMBINATIONS					
Z701,702	RXAF103P22HD	0.01μF (X2), Hum Cancel	2		
LAMPS					
PL1,2,3	XAMR64T	Lamp, Dial & Meter (12.6V 0.38A)	3		
PL4	XAMR38S200	Lamp, Stereo Indicator (6.3V 40mA)	1		
FUSES					
F1 (X,XG,XGH, XSD,XSW)	XBA2C20TRO	Fuse, 2A T Power Source (Except Set for (XAL) & (XE))	1		
F2	XBA2C20TRO	Fuse, 2A T Power Source	1		
F3,4	XBA2C25SSO	Fuse, 2.5A, Speaker Circuit Protection	2		
F5,6	XBA2C10TRO	Fuse, 1A T Power Source	1		
SWITCHES					
S1	SSR33	Selector Switch	1		
S2,3,4,5	SSH407S	Push Switch, Tape, Mode, Muting & Loudness	1		○
S6,7	SSH223S	Push Switch, Speakers	1		
S8 (X,XG,XGH, XSD,XSW,XE)	ESB7075	Power Switch, Set for (X), (XG), (XGH), (XSD), (XSW) & (XE)	1		
S8 (XAL)	ESB7083	Power Switch, Set for (XAL)	1		
S9 (X,XG,XGH, XSD,XSW)	SSR83S	Voltage Selector Switch, Set for (X), (XG), (XGH), (XSD) & (XSW) (Except Set for (XAL)	1		
S9 (XE)	SSR53-1S	Voltage Selector Switch, Set for (XE)	1		
METERS					
	SSM77	Meter, Signal	1		
CABINET and CHASSIS PARTS					
1	SGW7430	Panel, Front	1		○
2	XTS3+8CFZ	Screw, Front Panel M'tg	2		
3	XTV3+8C	Screw, Panel, & Reflection Board M'tg	4		
4	SBN589	Knob, Bass, Treble, Balance, Volume Control & Selector Switch	5		
5	SBN587	Knob, Tuning Control	1		
6	SGX6455	Sleeve, Push Switch Buttons	3-1/2		
9	SGUA34	Glass Plate, Front Panel	1		
10	SBC147	Button, Power Switch	1		
11	SBC149	Button, Push Switches	6		
12	SHG1339	Rubber Bushing, Push Switch Buttons	6		
13	RDR20	Pulley, Dial Cord	4		
14	RNW150-2	Washer, Pulley Lock	4		
15	RDY34	Shaft, Pulley (RDR20)	3		
16	SDR3	Pulley, Dial Cord	2		
	SDY9	Bracket, Pulley Shaft (SDY11)	2		
	SDY11	Shaft, Pulley (SDR3)	2		
17	XCJ6P11B-A	Jack, Headphones	1		
18	XWV8	Spring Washer, Tone, Balance, Volume	4		
19	XNS8	Nut, Tone, Balance, Volume Control	4		
20	XWV7	Spring Washer, Selector Switch	1		
21	XNS7	Nut, Selector Switch	1		
22	SDT8011-3	Shaft, Tuning Control Ass'y	1		
23	SDX751S	Flywheel, Tuning	1		
	XXAS3K5S	Screw Flywheel M'tg	2		
24	SHGA204	Rubber Bracket, Stereo Indicator	1		
25	XYN3+C6S	Screw, Shaft Ass'y M'tg	1		
26	SXE723S	Shaft, Dial Cord Ass'y	1		
27	SHRA916-1	Lock Pin, Dial Scale	2		
28	SKD2670	Scale, Dial	1		
29	SDZ051-1	Cord, Dial, 74 1/8" (190cm)	1roll		
30	SDPA8	Pointer, Dial	1		
31	SHPA4	Paper, Pointer Slide	1		

Ref. No.	Part No.	Part Name & Description	Per Set		Remarks
32	SUMA8-2	Bracket, Dial Scale	1		
33	SHRA306	Clamp, Lead Wire	1		
34	XTB3+8BFZ	Screw, Dial Plate & Chassis M'tg	9		
35	SDH349	Plate, Dial Light	1		○
36	SGL51	Orange Filter, Stereo Indicator	1		
37	SUSA69	Spring, Meter M'tg	1		
38	XTB3+8FFZ	Screw, Reflection Board M'tg	2		
39	SUD153	Spacer, Reflection Board	2		
40	SJT345	Holder, Dial Lamp & Fuse	10		
41 (X,XAL)	SKA8490	Cabinet, Brown Wooden, Set for (X) & (XAL)	1		
41 (XG,XGH, XSD,XSW)	SKA8491	Cabinet, Black Wooden, Set for (XG), (XGH), (XSD) & (XSW)	1		
41 (XE)	SAK8530	Cabinet, Brown Wooden, Set for (XE)	1		
42	XWG4FZ	Washer, Cabinet Screw	4		
43	XWA4BFZ	Spring Washer, Cabinet Screw	4		
44	XTB4+12FFZ	Screw, Cabinet M'tg	4		
45	SQXA4112	Caution Label, Cabinet Screw	1		
47	SGP9021	Cover, Hole (Except Set for (XAL))	1		
47 (XAL)	SUE3	Cover, Hole (Only Set for (XAL))	1		
48 (X,XG)	SJA95	AC Cord, Set for (X) & (XG)	1		
48 (XGH,XSD)	SJA81	AC Cord, Set for (XGH) & (XSD)	1		
48 (XSW)	SJA68	AC Cord, Set for (XSW)	1		
48 (XAL)	SJA79	AC Cord, Set for (XAL)	1		
48 (XE)	SJA99	AC Cord, Set for (XE)	1		
49 (X,XG,XGH, XSD,XSW)	SHR127	Bushing, Set for (X), (XG), (XGH), (XSD) & (XSW)	1		
49 (XAL)	SHR131	Bushing, Set for (XAL)	1		
49 (XE)	SHR129	Bushing, Set for (XE)	1		
50	SJF4805-1	Terminal, Speaker & Fuse Holder	1		
51	SUV337	Cover, Circuit Protection Fuses	1		
52	XTN3+8B	Screw, Fuse Cover M'tg	1		
53	SHR401-1	Lock Pin, Input & Antenna Terminal	7		
54	SJFA4402	Terminal, Ext. Antenna	1		
55 (X,XG,XGH)	SGP370-1F	Rear Panel, Set for (X), (XG) & (XGH)	1		○
55 (XSD,XSW)	SGP370-1FD	Rear Panel, With Name Plate (SGT12570) Set for (XSD) & (XSW)	1		○
55 (XAL)	SGP370-2FL	Rear Panel, With Name Plate (SGT12610) Set for (XAL)	1		○
55 (XE)	SGP370-1FE	Rear Panel, With Name Plate (SGT12670) Set for (XE)	1		○
56	SJF3019	Terminal, Input & Tape Deck	1		
	SJS6501	Socket, DIN (Tape Deck Connector)	1		
57	SDD47-1	Drum, Dial Cord	1		
58	SDSA4121	Spring, Dial Cord	1		
59	SMA213	Bracket, AM Antenna Coil	1		
	RHG109	Rubber Cushion, AM Antenna Coil	2		
60	SUV343	Cover, Main Amplifier IC	1		
61	XTB3+8BFYR	Red Screw, IC Cover M'tg	2		
62	SKL149	Foot, Set	4		
63	SKU5830-1	Bottom Cover	1		
64	XWG3	Washer, Bottom Cover Screw	1		
65 (X,XG,XGH, XSD,XSW)	SJFA5101	Holder, Fuse (Except Set for (XAL) & (XE))	1		
ACCESSORIES					
A1	SSA251	Cord, 75Ω FM Antenna	1		
A2	XBA2C25SSO	2.5A Fuse, Speaker Circuit Protection	2		
A3	RJP5	Pin Plug	4		
A4 (X)	RJP16AS	AC Plug, Only Set for (X)	1		
A5 (X)	RJP17AS	AC Plug, Only Set for (X)	1		

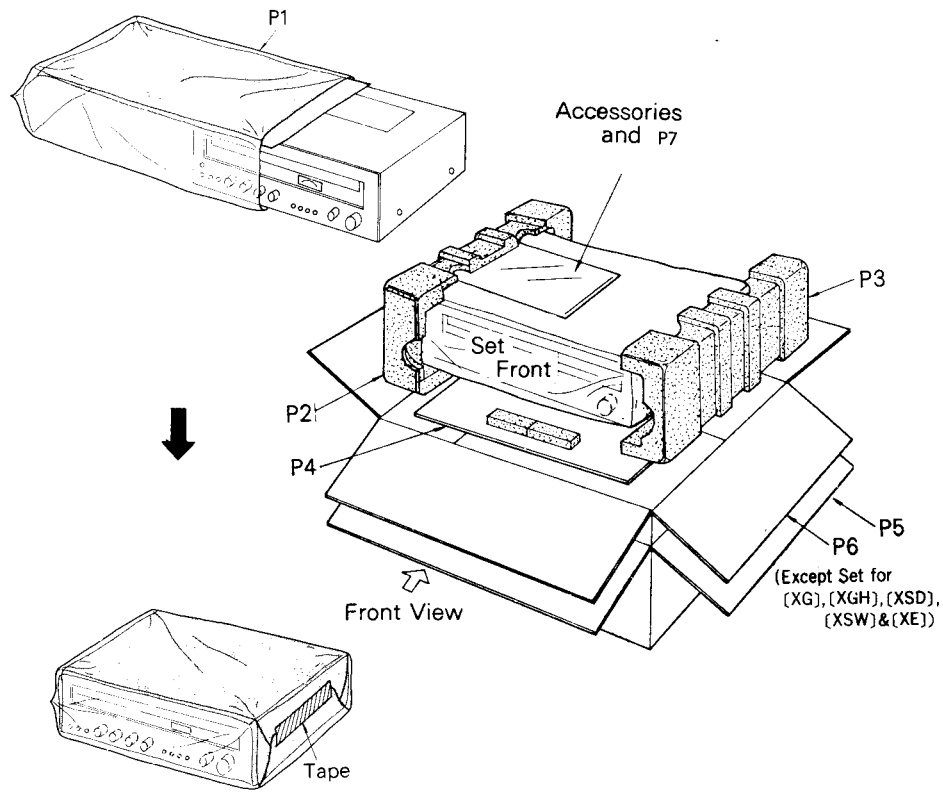
■ CABINET & CHASSIS PARTS LOCATION



Ref. No.	Part No.	Part Name & Description	Per Set		Remarks
		PACKINGS			
P1	SPP495	Soft Cover	1		
P2	SPS1-1	Pad, Left Side	1		
P3	SPS3-1	Pad, Right Side	1		
P4 〔X,XAL〕	SPS555-1	Pad Lower, Set for 〔X〕&〔XAL〕(Except Set for 〔XG〕,〔XGH〕,〔XSD〕,〔XSW〕&〔XE〕)	1	○	
P5 〔X,XAL〕	SPG779	Carton Box, Outer, Set for 〔X〕&〔XAL〕	1	○	
P5 〔XG,XGH, XSD,XSW〕	SPG785	Carton Box, Set for 〔XG〕, 〔XGH〕 〔XSD〕&〔XSW〕	1	○	
P5 〔XE〕	SPG783	Carton Box, Set for 〔XE〕	1	○	
P6 〔X,XAL〕	SPN5189	Carton Box, Inner, Set for 〔X〕&〔XAL〕 (Except Set for 〔XG〕,〔XGH〕,〔XSD〕, 〔XSW〕&〔XE〕)	1	○	
P7 〔X,XG, XSD,XSW〕	SQF1273	Printed Matter, Set for 〔X〕, 〔XG〕 〔XSD〕&〔XSW〕	1	○	
P7 〔XAL〕	SQF1379	Printed Matter, Set for 〔XAL〕	1	○	
P7 〔XE〕	SQF1299	Printed Matter, Set for 〔XE〕	1	○	

Notes: Set for 〔X〕 are European, Asia, Latin America, Oceania, Middle East and Africa.
Set for 〔XG〕 are European.
Set for 〔XGH〕 is Holland.
Set for 〔XSD〕 are Denmark, Sweden, Norway and Finland.
Set for 〔XSW〕 is Swiss.
Set for 〔XAL〕 is Australia.
Set for 〔XE〕 is England.

■ PACKINGS



■ ACCESSORIES